

Influencing Factors of Stock Price in Nepal

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Abstract

This paper explores the influencing factors of stock price in Nepal (with reference to Nepalese commercial banks) listed on the Nepal Stock Exchange Ltd. over the period of 2008 to 2018AD. The information were collected from questionnaire and financial statement of concerned organizations and analyzed using simple linear regression model. The conclusions of the work revealed that earning per share (EPS), dividend per share (DPS), effective rules and regulations, market whims and rumors, company profiles and success depend upon luck have the significant positive association with share price while interest rate (IR) and price to earnings ratio (PER), showed the significant inverse association with share price. Further, accessibility of liquidity, fundamental and technical analysis stimulates the performance of the Nepalese stock market. More importantly, stock market has been found to respond significantly to changes in dividend and interest rate.

Key words: *Stock price, Dividend, Interest Rate, Earning per Share, Capital Market*

Introduction

This paper deals with the affecting factors of stock price of commercial banks on the basis of financial statements and other economic situations in Nepalese context. The overall aim of this paper is to examine the impact of the internal as well as external factors on stock prices to Nepalese commercial banks. It examines the determinants of stock price of commercial banks listed on the Nepal Stock Exchange Ltd. over the period of 2008 to 2017 AD.

The stock price is used to be fluctuated time to time and the extent of volatility changes over time. What factors are responsible for these changes in the stock price? Every person specially related with capital market in this or that way, tries to get answer to these questions. In particular, the recent great stock market crashes poses particular challenges to economic and statistical models. During last few decades, there have been elaborated efforts to build models that explicitly allow for large market movements (Eraker, 2004).

There are 9 sectors and 196 stock listed in the NEPSE and the paper has calculated the market capitalization sector wise. The paper has considered the latest total listed shares and current market price for calculating Market Capitalization. The total market capitalization on NEPSE is Rs. 1786360 million in nine different NEPSE sectors, among them Banking sector has the highest market capitalization Rs. 941590 million which covers 52.71% of total market capitalization (NEPSE 2018). Therefore, the movement of NEPSE depends on the movement stock price of banking sector. Hence, this article proves more relevant. Further, the coverage of this paper to address all the Nepalese commercial banks listed in the NEPSE is more justified.

Volatile movements of stock price are normal phenomenon. Even when the time and situations are

same, stock price has been fluctuating. It is influenced by different factors. But unusual fluctuation and time varying volatility in the stock prices creates uncertainty to the investors, difficulties to the policy makers and the government. The paper is conducted for adopting the ideas from investors why and which factors are more responsible for determining the stock price. It is conducting for the exploring and analyzing the internal and external factors to identify the position of affecting factors. In addition to secondary data, primary data were also collected and analyzed to assess the reality of stock market ups and downs in real life situation.

Basically, stock price is influenced by demand and supply. Both the internal and external factors determine the stock price. However, to specify exactly what factors do determine stock price is a controversial/unpredictable issue. Stock price is the function of the several factors. The stock price fluctuates time to time and stock exchanges react to the environmental changes. However, for some environmental changes, the stock exchanges have no effect. The major issue of this paper is the stock price fluctuating in the same as well as different situation. This paper is to analyze which are the most important affecting factors on stock price of Nepalese commercial banks. More specifically, this paper is expected to answer the major influencing factors of stock price, relationship amongst MPS with the EPS, DPS, PER right share, market whims and rumors, interest rate and political situation on stock price. It also expected to explore which is the most significant factor to predict the stock price.

Objectives

The main objective of the paper is to explore the affecting factors of stock price and analyze the inter-relationship among the affecting factors. The specific objectives are as follows:

- To explore the effect of EPS, PE ratio, DPS and right share on stock price.
- To examines the inter-relationship between the stock price and interest rate, credit facility and stability of government.

To analyzes the associations between MPS and Nepal Bandh (general strike), whims and rumors and public media.

Conceptual Framework

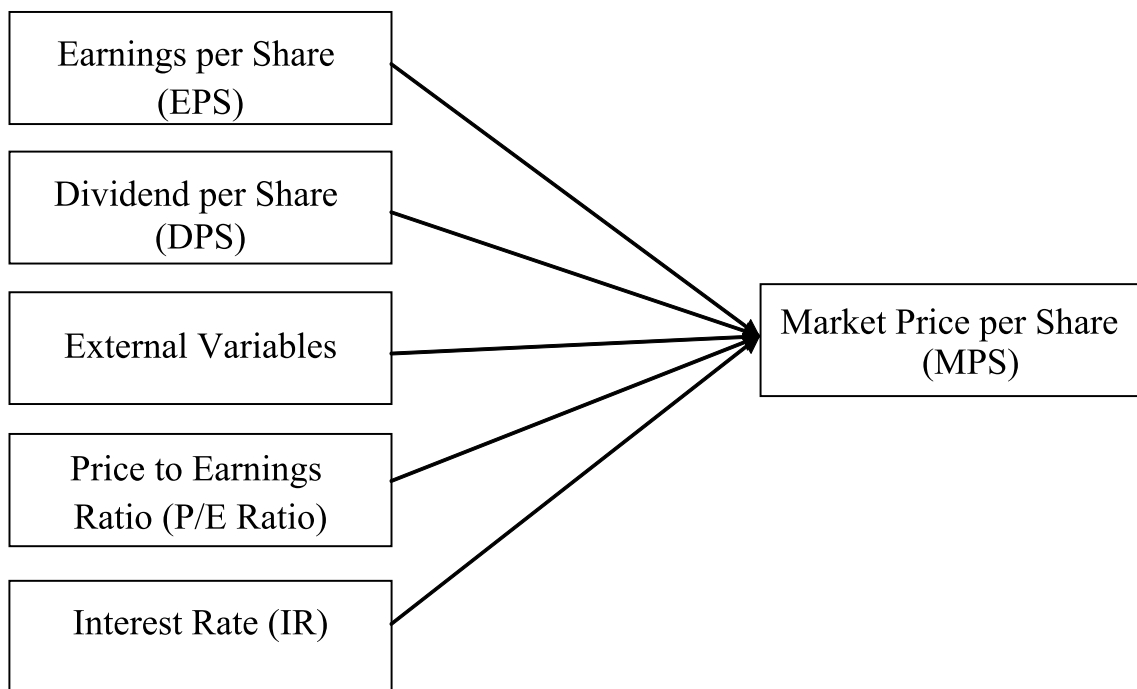


Figure 1: Variables

Review of Literature

Most previous studies examining the effect of macroeconomic variables on the stock market focus on the U.S. or other advanced countries (Fama, 1981; 1993; Sharma, 1998; Chaudhary, 111996; Sharma, 2011). Variables considered by these studies include real GDP or industrial production, the money supply, interest rates, exchange rates, the consumer price indexes or inflation rates, foreign stock market indexes and so on. Their findings suggest that most of these macroeconomic variables have significant impacts on the stock market indexes to varying degrees.

It has strong positive relationship with inflation and growth of money supply, and negative response to interest rate Shresth and Subedi, (2014). It shows that people have been gradually taking stock market as a hedge against inflation and invest in this market when there is ample liquidity available at a low interest rate. More importantly, the stock market performance has been found to be influenced by political changes and the NRB's policy Dangol, (2008). The positive outlook for political stability has positive impact on stock market index. Similarly change in NRB's policy on lending against share collateral has significant impact on the movement of stock market index. It considers the impacts of ten major macroeconomic variables on the stock markets in Estonia, Latvia and Lithuania and shows that the Estonian stock market index has a positive relationship with imports, the harmonized CPI and foreign direct investment, a negative relationship with real GDP, exports, the M1 money supply, the unemployment rate and the government debt, and is not affected by the trade balance and the short-term interest rate Kemboi, (2014). Argue that if an increase in money supply leads to economic growth, stock prices would benefit from expansionary monetary policy. In another way, with increase in money supply, the availability of liquidity at a lower interest rate increase, which can flow into the stock market Mukharjee and Naka, (1995)?. It is confirmed that there is unilateral causal relationship between the NEPSE index and short term interest rate which moves from interest rate to NEPSE index. From the test results it can be concluded that the short-term interest rates are the better predictor for NEPSE index Gaire, (2017). The results revealed that earning per share, dividend per share, and book value per share has significant impact on the market price of share. Furthermore, results of the paper indicated that dividend per share and earnings per share being the strongest determinants of market price Sharma, (2011). The results indicated that firms' book value, earning per share, and price-earnings ratio are having a significant positive association with firm's stock price while dividend yield is having a significant inverse association with the market price of the firm's stock Malhotra and Tandon, (2013).

In NEPSE, DPS, BPS & EPS individually do not have constituent relationship with the market price of the share among the listed companies. The pricing behavior varies from one company to another. But EPS, BPS & DPS, jointly have significant effect in market price of the share. It has found that the government policy is main factor that influence the stock market volatility followed by government tax policy. It indicated that the government policy or the role of the government is very important in stock market volatility. Firm's earning power, cash flows and dividend policies are second important factors for such volatility. The price changes of the past and present can be very helpful to forecast future price and present can be very helpful of future price changes. When log days increase, the mean value of serial correlation of coefficient is lower, that indicates the past price changes may have low power to predict the future price in the long run Shrestha, (1999).

Research Methods

This paper adopted both quantitative and qualitative research methods. Descriptive, trend, causal comparative research design were used. In order to address the issues raised in the research work, the study of ten years annual and quarterly time series data were considered. The statistical tools of bivariate, multivariate, correlation and ANOVA testing were used. Excel, SPSS statistical software were used for the numerical data. All the listed in NEPSE companies are population. They are categorized by ten sub- indexes such as Banking, Hotels, Development Banks, Finance, Non- life Insurance, Hydro Powers, Manufacturing and Production Companies, Micro- finance, Life insurance Companies and other. Commercial Banks sub-

indexes are selected as sample using convenient sampling method for the paper. To accomplish the research objectives, quarterly time series data spanning from the 2008 to 2017 AD has been used by using convenient sampling method. The secondary data were obtained from the NEPSE, NRB, SEBON and Financial report of listed commercial Banks.

Primary and secondary source of data are used for gathering the information about the affecting factors. Secondary data are gathered from Nepalese commercial Banks' financial statement, NRB, NEPSE, and SEBON. Primary data are collected from the questionnaire. The collected data are coding, editing, summarizing and presenting with the reference of APA format.

Table 1 Priori Hypotheses

Variables	Definition	Symbol	Expected sign
Independent variable			
Stock Dividend	Total Dividend paid/Number of shares	Stock Dividend	H ₁ (+)
Right Share		Rs.	H ₂ (+)
Earnings per share	Net Income/Number of shares outstanding	EPS	H ₃ (+)
Dividend per share	Dividend per share Dividends paid/ Number of shares	DPS	H ₄ (+)
Price to earnings ratio	Stock price/EPS	PE	H ₅ (+)
<i>Nepal Bandh</i> (general strike) and similar activities		<i>Nepal Bandh</i> (general strike)	H ₆ (-)
Credit facility		R & R	H ₇ (+)
Interest rate		IR	H ₈ (-)
Political instability		PI	H ₉ (-)
Effective rules and regulations		Rules	H ₁₀ (+)
Cash Dividend per share		Cash Dividend	H ₁₁ (+)
1 Variable			
Stock price	Average Stock price	SP	

Results

A total number of 150 respondents have been taken for conducting research in the survey for the purpose of obtaining search results. The respondents have been representing sex and profession from Kathmandu Valley. The total numbers of questionnaire (175) were distributed. Only 150 were collected out of 175 questionnaires.

Many factors have affected the price of stock for taking buying and selling decision. Respondents are asked questions to get general information about which market they usually used primary, secondary and both to buy stock. Open-ended questions are asked for Proper price, past price movement for making the investment decision.

Table 2 Responsible Factors

Particulars		Frequency	Percentage	Rank	Valid Percent
Properly Priced	No	91	78.4	1	79.1
	Don't know	16	13.8	2	13.9
Past Movement	Yes	93	80.2	1	80.2
	No	18	15.5	2	15.5
	Don't Know	5	4.3	3	4.3
Better to Invest in Nepal	Yes	89	76.7	1	76.7
	No	9	7.8	3	7.8
	Don't Know	18	15.5	2	15.5
Important Factors	Cash Dividend	21	18.1	2	18.1
	Stock Dividend	60	51.7	1	51.7
	Right Share	15	12.9	4	12.9
	Future Security as Pension	20	17.2	3	17.2
Total		116	100.0		100.0

Source: Field survey 2018

As per above table the questionnaires were developed to identify the buying behavior in the stock, the first question was about the properly stock priced in Nepal. 78.4% respondents provide their view no and 13.8% provide their view don't know. The respondents are asked the past movement affect the buying behavior of investors. The majority of respondents 80.2% provide their view yes. It reveals the very few 15.5% and 4.3% respondents no and don't know respectively. Next question was is it better to invest in the share. It reveals that majority of the respondents 76.7% yes and very few respondents 7.8% there is no good to invest in share in Nepal and 15.5% respondents provide their view don't know. Similarly, next questions are asked about important factors such as cash dividend, stock dividend, right share and future expectation to determine the stock price in Nepal. Among the mentioned factors, it reveals that the majority respondents 51.7% in the stock dividend. 18.1% cash dividend, 17.2% future security as a pension and 12.9% second, third, and fourth position that means right share in lower priority.

Table 3 Internal and External Factors

Factors	N	Mean	Rank	Std. Deviation
Stock dividend/ Bonus share	115	1.86	1	0.990
Change in Interest rate	115	2.15	2	1.352
Right share	112	2.83	3	1.177
EPS	113	2.89	4	1.502
Economic Events	112	2.95	5	1.314
Cash Dividend	112	3.05	6	1.207
Political Events	113	3.11	7	1.423
Good Governance	113	3.19	8	1.497
Change in Share Loan ratio	113	3.24	9	1.270
Expectation future security as a pension fund	112	4.03	10	1.372

Source: Field Survey 2018

As per the above table, the 'stock dividend/bonus share with the mean value 1.86 and standard

deviation 0.990 is the most important affecting factor or buying the share. It implies that Nepalese investors are basically preferred more investment in the same company. Interest rate with the mean value 2.15 and standard deviation 1.353 is second position the fluctuation of interest rate makes the stock market more mobility. Right share with the mean value 2.83 and standard deviation 1.77 is in third position that means Nepalese investors want to more investment by paying next more money in the same company. EPS, economic events, cash dividend, political events, good governance, change in share loan ratio and expectation of security as a pension fund are third, fourth, fifth, sixth and seventh respectively. Expectation of security as a pension fund with mean value 4.03 and standard deviation 1.372 is found the last preference factor that means Nepalese investors do not want to invest for the long term.

Correlation

The correlation shows the relationship between Market price per share (MPS) and various factors such as EPS, DPS, PER, Cash Dividend and Stock Dividend. The relationship between Market price per share (MPS) and other variables was established to know whether relationship between them is or not.

Table 4 Correlation Matrix

Individual Bank	EPS	DPS	Cash Dividend	Stock Dividend	PER	
MPS	1					
EPS	.829**	1				
DPS	.924**	.888**	1			
Cash Dividend	.892**	.764**	.889**	1		
Stock Dividend	.747**	.807**	.883**	.641**	1	
PER	0.217	-0.19	0	0.027	-0.07	1
N	27	27	27	27	27	7

The above table no. 4 shows the correlation coefficient between Market price per share (MPS) and Earning per share (EPS), Dividend per Share (DPS), Cash and Stock Dividend it has found that strongly positively correlated except Price to Earnings Ratio (PER). The p- value has recorded to be 0.000 that is highly significant. It reveals that t-value is significant at 1% level of significant. Thus, it can be concluded that there is a positive and significant relationship between Market price per share (MPS) and EPS, DPS, Cash and Stock Dividend except Price to earnings Ratio. It confirms that Market price per share (MPS) have significant relationship with among the variables of Nepalese commercial Bank.

Correlation between MPS and IR

The correlation shows the relationship between Market price per share (MPS) and interest rate (IR). The relationship between Market price per share (MPS) and interest rate (IR) was established to know whether relationship between them is or not.

Table 5 Correlation between MPS and IR

	MPS	IR
MPS	1	
Interest rate IR	-0.292	1

The above table shows the correlation coefficient between Market price per share (MPS) and interest rate (IR) it has found to be -0.292 that is negatively correlated. The p- value has recorded to be 0.002 that is highly significant at 0.01 level. Thus, it can be concluded that there is a negative relationship between Market price per share (MPS) and interest rate (IR). It confirms that Market price per share (MPS) have significant negative relationship with interest rate (IR) of Nepalese commercial Bank.

Testing of Hypothesis

The ANOVA table shows the strength of relationship between dependent and independent variables. MPS represents the dependent variable and EPS, DPS, PER, cash dividend, Stock dividend represent the independent variables.

Table 6 ANOVA Testing

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12612016.425	5	2522403.285	56.463	0.000 ^b
	Residual	848797.509	19	44673.553		
	Total	13460813.934	24			

The above table clearly indicates that the strength of relationship MPS and EPS, DPS, PER, Stock Dividend, Cash Dividend has been established. It has obtained using regression model summary and ANOVA. The degree of relationship between the MPS and EPS, DPS, PER, Stock Dividend, Cash Dividend is about 93.7 percent. The R- Square value 0.920 indicates this percent increase. To check cases of overstatement in R- Square, Adjusted R-Square was then used. Since the Adjusted R-Square value was the same as that of R-Square, it means the strength of relationship between the two study variables (93.7 percent) is actual and realistic. Thus, if the investors give more important on the EPS, DPS, PER, Stock Dividend, Cash Dividend puts more emphasis in MPS among the variables is likely to increase by 93.7 percent. In using ANOVA, it can be confirmed that the degree of strength between MPS and EPS, DPS, PER, Stock Dividend, Cash Dividend in Nepalese commercial Banks is very strong. A very high Sums of Squares 12612016.425 ; Mean Squares 2522403.285 and F value of 201.397 confirmed the strength of this relationship. The impression from Sums of Squares 55.743 ; Mean Squares 55.743 and F value of 56.463 is that the model of relationship between the study variables is highly significant at the 0.000 level. Thus, it can be concluded that the regression equation be run to diagnose the strengths of relationship between MPS and EPS, DPS, PER, Stock Dividend, Cash Dividend of Nepalese commercial Banks. It cleared that there is significant emphasis to MPS by EPS, DPS, PER, Stock Dividend, Cash Dividend of stock price of Nepalese commercial Banks in Nepal based on information obtained.

Conclusions

By analyzing the behavioral aspect of investors in the research work it can be concluded that the majority of respondents prefer to buy the stock from primary. As well as it is used secondary market even though there is not proper stock priced in Nepal. Investors preferred in the stock dividend than the cash dividend, according this result it can be summarized that investors want to further investment in the same company. Likewise, past movement of stock price also affects the buying behavior of the investors.

There is strong evidence that most of the investors purchase the stock by analyzing the fundamentals financial statement. Nepalese stock market is not fully matured, stock prices are not determined properly in Nepal, Nepalese investors do not consider risk while making investment in securities and information is not equally accessible to all the investors in Nepal. Political crisis and/or unclear political situations observed time to time are most responsible for varying volatility of stock price. Unclear government policies are

relatively more responsible for making the stock market ups and downs.

The results revealed that earning per share (EPS), dividend per share (DPS), market whims and rumors and company profiles have the significant positive association with share price while interest rate (IR) and price to earnings ratio (PER) showed the significant inverse association with share price. It means the stock market of Nepal is sensitive to the country's financial system, dividend and short term interest rate has been one of the major determinants of the stock market. Thus, it is concluded that dividend and short term interest rate could be the most important predictors of the stock prices in the secondary market of Nepal.

These findings are associated with the previous studies of various scholars, critics and researchers and their insights, which have some degree of association with the overall result of this work. This work spotlights on dividend as an internal variable in determining the stock price. By the same token, interest rate also plays a crucial role as an external variable in determining the stock price. As far as the combined effect of both internal and external variables is concerned, dividend factor just comes to the fore front. Thus, the dividend is a driving force to determine the stock price.

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